Connecting to Communicate: Serving Children with Hearing Loss & Their Families Through Telepractice

K. Todd Houston, PhD, CCC-SLP, LSLS Cert. AVT
School of Speech-Language Pathology & Audiology
The University of Akron
Disclaimers

Dr. Houston is currently the author or co-author/editor of three books published by Plural Publishing:

*Telepractice In Speech-Language Pathology* (2014)

*Assessing Listening and Spoken Language In Children with Hearing Loss* (2015) – with co-author/editor, Tamala S. Bradham, PhD, CCC-A

*Telepractice In Audiology* (2016) – with co-author/editor Emma Rushbrooke, MA, AuD

Dr. Houston does not receive any monetary compensation from any of the manufacturers/companies of the technology discussed during this presentation.
Learning Objectives

At the end of this presentation, participants will be able to:

- Identify current distance technology that is impacting early intervention and the education of children with hearing loss;

- Discuss the role of parent coaching in telepractice; and

- Define the use of telepractice as a service delivery model for children with hearing loss and their families.
Dylan & Dad...and Butterflies!
Terminology
Defining Telepractice

- American Speech-Language-Hearing Association
  - The application of telecommunications technology at a distance by linking a clinician to client or clinician to clinician for assessment, intervention, and/or consultation.

- Telepractice is an appropriate model of service delivery for the professions of Speech-Language Pathology & Audiology.

- The quality of services delivered via telepractice must be consistent with the quality of services delivered face-to-face.
History of Telehealth
Evolution Leading to Revolution

5 Mb of Storage Being Loaded: 1956
The times...They are a-changin’

- Virtual Reality = Immersive Computing
- Artificial Intelligence (AI) / Robotics
- 3-D Printing
- Internet of Things / Internet of Everything / Smart Homes
- 5G connections = 10K faster, 10 Gbits per second
- Everything On Demand = Uber, Lyft, etc.
- Quantified Self / Mobile Health
- Self-Driving cars
Convergence of Technology, Healthcare, & Education

Technology: Smartphones, Tablets, Notebooks

Increased Demand for Telehealth

Any Service, Any Place, Any Time
"On Demand"

Social Media/Networks: Connections

Broadband Internet

Lowering Costs: ACA, Market Pressures
...so what about early interventionists, audiologists, and speech-language pathologists?
Healthcare Access of the Future

According to the American Medical Association, 70% of doctors visits and 40% of ER visits could be avoided through telemedicine.

Increasingly, speech-language pathologists, audiologists, and other educators are adopting models of telehealth & telepractice to serve more children with hearing loss and their families.
“Telehealth has taken many years to become an “overnight” sensation...and now we have...a convergence of telecommunications and health care finally becoming a reality.”

--David Fabry, PHD
Telepractice & Speech-Language Pathology

- Around the world, SLPs are using telepractice to deliver direct and indirect services for the following areas of practice:
  - Assessments
  - Speech and language delays
  - Articulation & phonological disorders
  - Voice & fluency
  - Non-verbal/AAC
  - Traumatic brain injury
  - Aphasia/Stroke
  - Auditory-Verbal Therapy/Parent Coaching
  - Adult Aural Rehabilitation
  - Supervision, mentoring, & consultation

Boisvert, M. (2014)
Telepractice & Audiology

- Patient Counseling
- Hearing Screenings
- Audiological Diagnostics
- Hearing Aid Fittings
- Cochlear Implant Mapping
- Teleintervention for children & Adult Aural Rehabilitation
Telepractice is not a different service but rather a different method of service delivery.

-- Janet Brown, 2010
Benefits of Telepractice

Telepractice: Force Multiplier

More Patients Served

Boisvert, M. (2014)
The Need for Telehealth/Telepractice

- Clinician/specialist shortages
- Misdistribution of providers
- Rural/urban underserved
- Travel time, cost & hardship
- Delayed treatment, intervention or rehabilitation
Telepractice Benefits

- Reduces barriers to access
- Reduces travel, time constraints
- Reduces overall healthcare costs
- Reduces delays in care
- Improves quality of care, collaboration, & coordination

More consistent therapy & intervention leads to improved speech, language, and learning outcomes for the children and families served.
The Question for the Day

With the convergence of communication technology and healthcare, how will telepractice service delivery models impact the provision speech-language intervention to children with hearing loss & their families?
Telepractice & eLearning Laboratory (TeLL)
Telepractice & eLearning Lab (TeLL)  
School of Speech-Language Pathology & Audiology

- The University of Akron serves children with hearing loss and their families as well as adults with hearing loss
- Pediatric therapy focuses primarily on listening and spoken language & Auditory-Verbal Therapy
- Adult aural rehabilitation with a direct, patient-centered focus
- Training of future SLPs in telepractice service delivery models
Adult Learning Theory:

Adults [Parents] like to...

- bring knowledge, skills, attitudes
- bring experience
- like to solve problems
- like to apply what they learn to real situations
- like to have choices
- like to share in the setting learning objectives
- have variety of learning styles/preferences
- do best in an environment where they feel safe, accepted, and respected
- want and need feedback
- need to have their abilities and achievements honored
Coaching and Adult Learning Theory

Joint Planning
Observation
Action
Reflection
Feedback

Generalizing knowledge and applying to other situations
Sequence Of Therapy Preparation

1. Referral to clinic
2. In-person visit for full evaluation
3. Completion of home inventories
4. Technology test session
5. Lesson plans emailed at least 48 hours prior to session
6. Parent gathers materials and prepares by collaborating with clinicians by email or phone
7. Session begins
Conducting A Session

1. Reviewing goals and activities
   - Reviewing goals from previous week, new updates, review goals for current session, check hearing devices

2. Conducting the lesson/activity
   - Demonstration of new strategies/techniques, coaching the parent or adult, discuss integration of goals into daily home routines, strategies for improving/controlling communication opportunities (adults)

3. Debriefing
   - Allow questions from parents, discuss continuation or selection of new goals, summarize session and goals for the coming week
Nancy & Alex
Nancy & Alex
Nancy & Alex
Nancy & Alex
Alex – the Super HEAR-O
Alex...getting ready for school
Technology continues to evolve; professionals must do the same. New service delivery models and the technological tools to support them – are inevitable.

Telepractice is a viable solution to meet the increased demand for listening & spoken language services for children with hearing loss & their families.

Telepractice service delivery models will continue to expand & will be regular fixtures in healthcare, early intervention services, and educational settings.
References


References


References


Resources

- American Telemedicine Association
  - www.americantelemed.org

- American Speech-Language-Hearing Association
  - www.asha.org/telepractice
  - SIG 18: Telepractice

- BroadbandUSA
  - http://www2.ntia.doc.gov/iowa

- Check with your professional organization for additional white papers, position statements, & preferred practices
Resources


- Center for Telehealth and E-Health Law (Ctel): http://www.telehealthlawcenter.org/


Telepractice & Listening & Spoken Language

Monograph available from the Alexander Graham Bell Association for the Deaf & Hard of Hearing
Available from Plural Publishing:

www.pluralpublishing.com

Published: 2014
Assistance Is Available!
Federally Designated
Telehealth Resource Centers

CTeL
Center for Telehealth & E-Health Law

NETRC
Northeast Telehealth Resource Center

THE NORTHWEST REGIONAL
Telehealth RESOURCES CENTER

CTEC

MIDWEST ALLIANCE FOR
TELEHEALTH & TECHNOLOGY
RESOURCES

GREAT PLAINS TRAC
Thank You for Listening!

K. Todd Houston, PhD, CCC-SLP, LSLSP Cert. AVT

Email: houston@uakron.edu
Office: (330) 972-6141
Facebook: K Todd Houston
Twitter: ktoddhouston
LinkedIn: www.linkedin.com/in/toddhouston
LinkedIn Groups: 6 Sound-Off
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